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ABSTRACT

A study examines various Huastec clause types that are reflexive in some sense, including ordinary reflexives, which involve co-reference. Two mutually exclusive morphosyntactic devices are used in Huastec: reflexive pronouns and verbal morphology. In this way, Huastec is like various European languages. Clauses involving reflexive pronouns and verbal morphology are considered separately. The analysis adopts the frameworks of relational grammar and arc pair grammar together (AG). The analysis assumes basic familiarity with the two frameworks, although some details of the formalisms are introduced as appropriate. The manner in which reflexive clauses and co-reference are treated within AG is outlined and the two clause types are discussed in detail. In the case of clauses involving reflexive verbal morphology, four types are examined, including: ordinary reflexives, reflexive passives, reflexive unaccusatives, and reflexive antipassives. A brief list of references is included. (MSE)

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REFLEXIVES IN VERACRUZ HUASTEC

Peter G. Constable

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1 INTRODUCTION

In this paper, I will consider various clause types in Huastec which are, in some sense, reflexive; this includes ordinary reflexives, which involve coreference, as well as other clauses. Two mutually exclusive morphosyntactic devices are used for reflexives in Huastec: reflexive pronouns, and verbal morphology; in this way, Huastec is like various European languages, including Spanish, Italian, Albanian, and Russian. Clauses involving reflexive pronouns are considered in §3, while those involving reflexive verbal morphology are considered in §4.

The analysis presented here adopts the frameworks of Relational Grammar (RG) and Arc Pair Grammar (APG). (These two frameworks will be referred to collectively as Arc Grammar, hereafter AG.) This presentation assumes a basic familiarity with these two frameworks, though some details of the formalisms will be introduced as the need arises. To begin, I will give a general outline of the manner in which reflexive clauses and coreference are treated within AG.

2 AG ANALYSIS OF REFLEXIVES

The claim made in Perlmutter and Postal 1984, Johnson and Postal 1980, and Postal 1982 is that ordinary reflexive clauses involve structures in which a single nominal heads two neighboring arcs (i.e. two arcs having the same tail) in the initial stratum. Thus, the initial structure of the clause in (1a) would be represented as in (1b):

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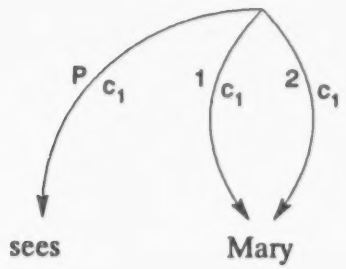
(1) a. Mary sees herself.

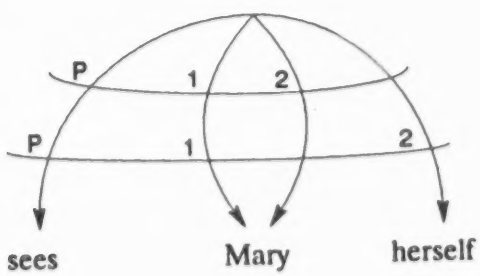
b.



This assumption is further generalized in the *multiattachment hypothesis*, which claims that languages permit multiattachment (MA) structures, in which a single nominal heads two neighboring arcs in a single stratum, initial or otherwise. This proposal has permitted a uniform and enlightening account of a recurrent phenomenon: that languages use reflexive morphology both in ordinary reflexive clauses, which involve coreference, as well as in other types of clauses which do not involve coreference (in particular, certain passive and unaccusative clauses) and which are otherwise apparently unrelated to ordinary reflexive clauses. (This situation in Huastec will be considered in §4.) The MA hypothesis has also permitted insightful accounts in several languages of facts seemingly unrelated to reflexive morphology, and has been argued for by Perlmutter (1978), Rosen (1981), and Berinstein (1984).

Another important notion that has accompanied the notion of MA is that of the *pronominal replacer*. It is assumed that MAs do not survive into the final stratum; all MAs must therefore be resolved. One way this can be achieved is with a pronominal replacer: of the two multiattached arcs, the one with the lower relation (on the hierarchy 1 > 2 > 3 > oblique) is *replaced* by an arc with the same R-sign and which has some form of pronominal element as its head. Thus, a more complete structure for (1a) above is given in (2):

(2)



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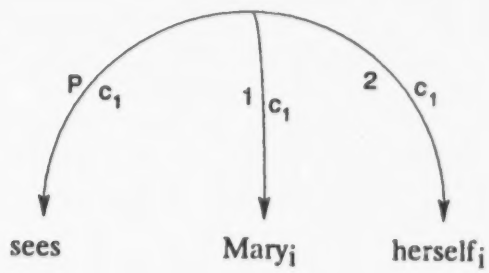
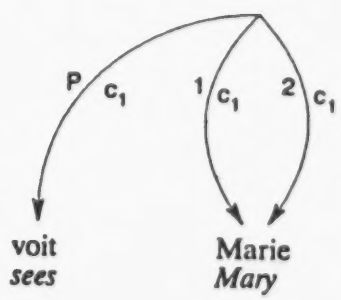
The original intent of the MA hypothesis was that MA could replace any syntactic notion of coreference.[1] Yet this has been brought into question by Rosen (1981) using evidence from Italian. While arguing decisively in favour of the MA hypothesis, Rosen also presents several arguments against the view that all cases of coreference involve MA. Specifically, she argues that reflexive clitics in Italian are a concomitant feature of MA, but that reflexive pronouns do not arise from MA and, rather, must occur in initial strata. Hubbard (1980) presents similar arguments from Albanian. Some of Rosen's arguments apply equally cross-linguistically, and a potential conclusion is that (non-clitic) reflexive pronouns in all languages occur in initial strata and do not arise from MA. The practical consequence of this is that both MA and some other syntactic device, effectively equivalent to co-indexing, are required to indicate coreference. Under this view, the sentence in (1a) would have the initial (and final) structure represented in (3), while the French example in (4a) would have the initial structure represented in (4b):

(3)



(4) a. Marie se voit.
Mary self sees
'Mary sees herself.'

b.



1. As observed by Postal and Pullum (1978, note 10), the representation of coreference by means of multiattachment is neither unique nor original to AG.

An evaluation of Rosen's arguments is beyond the scope of this paper. Within the AG literature, some have accepted her arguments while others hold to the view that coreference always involves MA; in particular, the latter view has been maintained by those working within APG. In describing clauses in Huastec which involve reflexive pronouns, I have simply chosen to present an analysis within the APG formalism with the assumption that coreference always involves MA. An analysis of these clauses that adopts Rosen's views would certainly be viable, and an evaluation of the two alternate analyses (and any others) would be in order. However, this decision relates only to clauses involving reflexive pronouns; therefore, it does not affect the major results of this paper which relate to clauses involving reflexive verbal morphology.

3 CLAUSES WHICH INCLUDE REFLEXIVE PRONOUNS

Ordinary reflexive clauses in Huastec, in which the 1 and 2 are coreferential, may contain a special anaphoric nominal:[2]

(5) U kaxu-al t-u-baa7.
1s/3 cut.hair-IMP CL-1sPOSS-self
'I cut my own hair.'

(6) A cha7u-Ø t-a-baa7.
2s/3 hit-PFV CL-2sPOSS-self
'You hit yourself.'

(7) In chu7u-Ø t-in-baa7.
3/3 see-PFV CL-3POSS-self
'He saw himself. / She saw herself.'

This nominal is not, strictly speaking, a reflexive pronoun; rather, it is a possessed noun phrase whose head is **baa7** 'self'.

Examples (5)-(7) demonstrate key properties of reflexive clauses in Huastec which involve a reflexive pronominal element. First, they are finally transitive, as demonstrated by the use of a

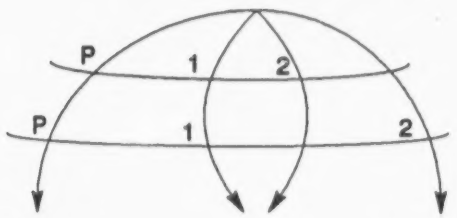
---

2. The orthography adopted here conforms to conventions familiar to Mayanists. The following conventions should be noted: *7* represents the glottal stop; *tz*, the voiceless alveolar affricate; *ch*, the voiced alveopalatal affricate; *th*, the voiceless interdental fricative; *x*, the voiceless alveopalatal fricative; and *j*, the glottal fricative. The sounds represented by *p*, *t*, *tz*, *ch*, and *k* have glottalized counterparts represented by *p'*, *t'*, *tz'*, *ch'*, and *k'*. Other symbols have the usual values.

transitive agreement proclitic; in fact, there is consistently third person agreement with a final 2. The reflexive nominal is always possessed, and the possessor agrees in person and number with the 1.

The structure I propose for such clauses is represented in the following diagram, which corresponds to the clause in (5); for the moment, certain details will be suppressed.

(8)



This analysis accounts for the final transitivity. Also, the assumption that the reflexive nominal baa7 has associated with it the category [third person] accounts for the fact that the final 2 agreement is always third person. I know of no principled way to account for the presence of the proclitic ti on the reflexive nominal.[3]

Similar facts apply in ditransitive clauses in which the initial 1 and initial 3 are coreferential:

(9) Nanaa7 u t'ila-tzi-Ø t-u-baa7 ti k^{w}ento.
1s 1s/3 tell-DAT-PFV CL-1sPOSS-self CL story
'I told myself a story.'

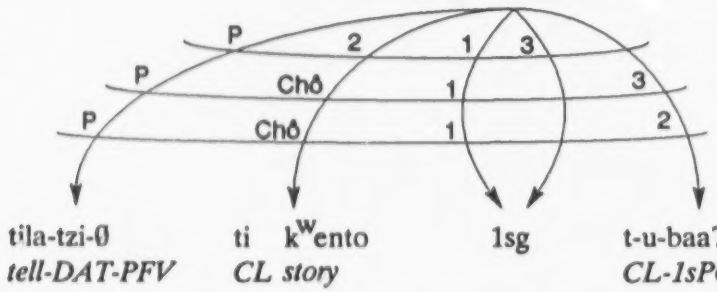
---

3. One possible account would involve the introduction of a silent dummy nominal as a 2 "after" the introduction of the pronominal replacer. The dummy 2 would place the reflexive nominal en chômage with the resulting effect that this nominal would be flagged by ti, like other 2-chômeurs. As final 2, the dummy would determine third person final 2 agreement on the verb. I know of no independent evidence for the occurrence of a silent dummy nominal in such clauses, however.

Ti also occurs with obliques expressing time or location and, in particular, with relational nouns used in possessed noun phrases to express a location.

As described in Constable 1989, 3s in Huastec advance obligatorily to 2; thus, the reflexive nominal is, again, the final 2 and determines third person final 2 agreement on the verb. The structure of (9) is represented by the following diagram:[4]

(10)



To formalize an analysis of these facts, it will be necessary to delimit the conditions under which the reflexive nominal may occur as well as to identify its possible antecedents; such constraints may be expressed in terms of grammatical relations. In all of the data I have encountered, the possible antecedents are limited to 1s. The antecedent and the reflexive nominal must also occur within the same clause:

(11) U chalpa-y-al tin k^watha-Ø (*t-u-baa7).
1s/3 think-?-IMP 2/1s hit-PFV (CL-1sPOSS-self)
'I think you hit me.'

The reflexive nominal may not replace an oblique nominal:

(12) a. Utat nanaa7 u k'^waji-ba-Ø an t'ujub.
near 1s 1s/3 be-CAUS-PFV DEF rock
'I placed the rock near me.'

---

4. There is an alternate analysis, equivalent to this one with regard to the surface facts, in which the initial 3 advances to 2 and then is replaced by the reflexive nominal. I know of no empirical evidence from Huastec to distinguish these two analyses; the alternate is systematically ruled out in APG, however, by a proposed universal: the *Coreferential Arc Law* (Johnson and Postal 1980:487). The choice between these two analyses would have bearing on the formulation of the rule describing the occurrence of the reflexive nominal, the *Reflexive Camouflage* rule (given in (22)). (See note 9.) It also has minimal consequences on the exact formulation of a rule relevant to ditransitive clauses which requires, in part, that 3s must obligatorily advance to 2.

b. *U k'^{W}aji-ba-Ø an t'ujub utat t-u-baa7.
1s/3 be-CAUS-PFV DEF rock near CL-1sPOSS-self
(same gloss)

(13) a. U k'^{W}aji-ba-Ø an t'ujub t-u waal.
1s/3 be-CAUS-PFV DEF rock CL-1sPOSS face
'I placed the rock beside me.'

b. *U k'^{W}aji-ba-Ø an t'ujub
1s/3 be-CAUS-PFV DEF rock

t-u waal t-u-baa7.
CL-1sPOSS face CL-1sPOSS-self

(same gloss)

c. *U k'^{W}aji-ba-Ø an t'ujub
1s/3 be-CAUS-PFV DEF rock

t-u-baa7 t-u waal.
CL-1sPOSS-self CL-1sPOSS face

(same gloss)

(14) Ø buxka-n-Ø t-in waal jajaa7.
3 sit-MID-PFV CL-3POSS face 3
'He$_i$ sat at his$_{i,j}$ side.'

(15) U cha7i-Ø an lemoox abal nanaa7.
1s/3 buy-PFV DEF lemon for 1s
'I bought the lemon for myself.'

However, the reflexive nominal may occur when advancement to 2 also occurs, as in clauses involving benefactive advancement:[5]

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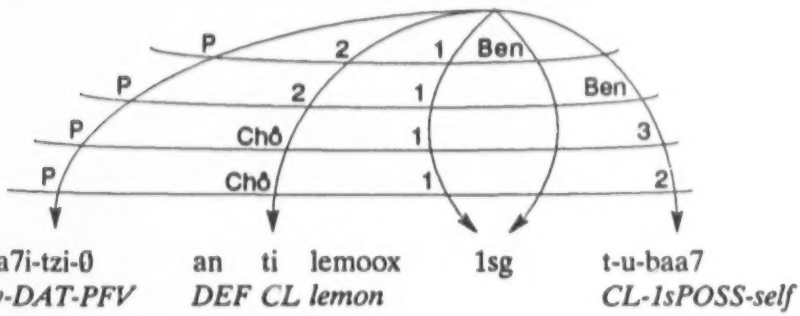
5. As is the case with ditransitive clauses (see note 3), there is an alternate analysis to the structure proposed in (16b) in which the initial Ben advances to 2 and then is replaced by the reflexive nominal. Again, there is no clear evidence in Huastec to distinguish the two analyses, but the alternate is systematically ruled out in APG by the *Coreferential Arc Law* (Johnson and Postal 1980:487). Of course, this choice will also have a bearing on the formulation of the Reflexive Camouflage rule (given in (22)). (See note 9.)

(16) a. U ch'a7i-tzi-Ø t-u-baa7 an ti lemoox.
1s/3 buy-DAT-PFV CL-1sPOSS-self DEF CL lemon
'I bought myself the lemon.'

b.



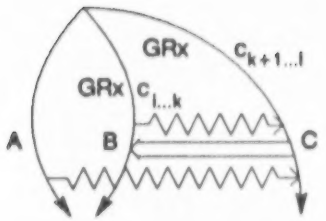
In order to formulate an explicit constraint that models these data, it will be necessary to appeal to notions within APG. It is the expressed intent of Johnson and Postal (1980; cf. §11.3) that the theory include universal constraints which have the effect of limiting the possible antecedents of anaphoric pronouns. Such constraints may preclude the need of any language-particular rule with this purpose in Huastec (or, perhaps, in any language). However, such constraints have yet to be proposed within the theory. Thus, for the present, a fully explicit rule for Huastec is still required. This rule will make key use of the important APG notion, *sponsor*.

A main feature of replacers in APG, by definition, is that the replacer has two sponsors: the arc which is replaced, and another *cosponsor*; this second sponsor is said to *second* the replacer. Thus, the relevant structure involved with replacers is as follows:[6]

Readers familiar with the RG literature will observe that the analysis proposed in (16b) violates the Oblique Law (cf. Perlmutter and Postal 1983:99-100) whereas the alternate suggested here does not. In APG, however, the Oblique Law is considered to be too strong a constraint, for reasons independent of analyses such as these, and is replaced by the *No Oblique Successor Law* (cf. Johnson and Postal 1980:249) which permits structures such as that in (16b) while upholding the original intent of the Oblique Law: prohibiting demotions to obliques.

6. For formal definitions of *replace* and *cosponsor*, see Aissen 1987:29 or Johnson and Postal 1980:110. For a formal definition of *seconds*, see Aissen 1987:29 or Johnson and Postal 1980:458.

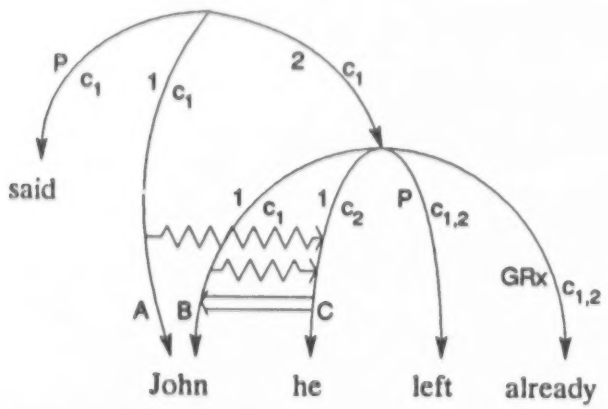
(17)



In this structure, arc C replaces B, and A seconds C. It is important to note that nothing requires that the cosponsors of a replacer be neighbors, as suggested by the structure in (17); this is clear from examples such as (18).[7]

(18) a. $John_i$ $said$ he_i $left$ $already$.

b.



Here the replacee, B, is in the complement clause, but the seconder, A, is in the matrix clause.

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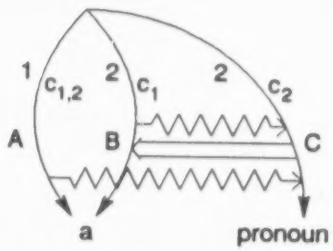
7. Furthermore, there is nothing in the theory that requires that the cosponsors overlap, as also suggested by the structure in (17). However, we are interested here in cases of coreference, and therefore only in cases where the cosponsors do overlap (per the assumption made at the end of §2).

Certain other features of the structure in (17) are not required by the definition of *replace*, but are required by proposed universal constraints, namely the *Replacer Erase Law* (Johnson and Postal 1980:112), and the *Replacer Coordinate Law* (Johnson and Postal 1980:165).

In the APG treatment of ordinary reflexive clauses in Huastec, the replacer arc is not headed by the reflexive nominal, but rather by an anaphoric pronoun; the relevant substructure is represented in the following diagram:

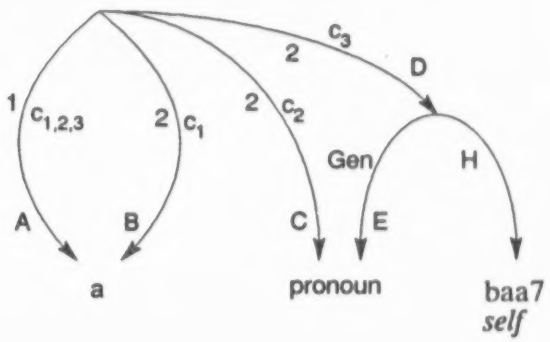
(19)



Since the cosponsors, A and B, overlap and are initial arcs, the replacer, C, is said to be a *coreferential arc*.[8]

In many languages, arc C in (19) would be a final arc, and the pronoun which heads C would appear as a reflexive pronoun (in languages that have reflexive pronouns). In Huastec, however, the pronoun which heads C is not a final 2 but, rather, is the *possessor* of the final 2. Thus, C is also replaced by another arc which has Gen (*genitive*) and H (*head*) branches, where **baa7** heads the H arc and the pronoun heads the Gen arc:

(20)



Arc D in (20) is referred to as a *camouflage arc*; this notion can be defined as follows (using (20) as a model): an arc D is a camouflage

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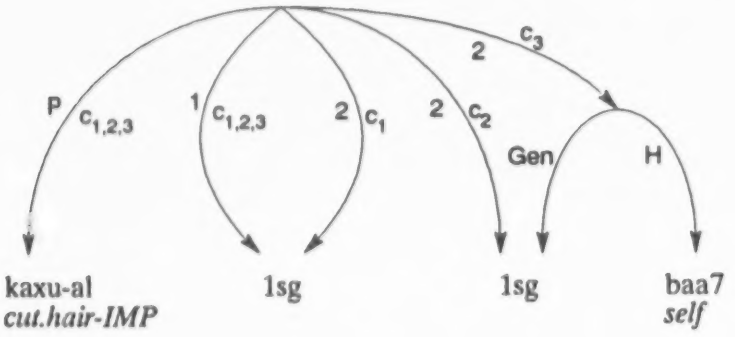
8. For a formal definition of *coreferential arc*, see Johnson and Postal 1980:484. The conditions cited in the text are not those required by the definition; however, that they are sufficient can be demonstrated by theorem.

arc iff it replaces an arc C which has a successor, E, that is a branch of D, and E is a Gen arc.[9]

With this framework in mind, a more complete representation of the clause in (5), repeated here, is given as follows (with sponsor and erase relations temporarily suppressed):

(21) a. U kaxu-al t-u-baa7.
1s/3 cut.hair-IMP CL-1sPOSS-self
'I cut my own hair.'

b.



Given these formalisms, the rule describing the occurrence of the reflexive nominal may be expressed as a constraint on the occurrence of certain camouflage arcs:[10]

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9. This differs from the definition of *camouflage arc* provided by Aissen 1987:83. These are effectively equivalent, however: camouflage arcs represent a specific variant of the more general notion *closure arc* (discussed below in the text); the definition given here makes use of this fact.

10. As mentioned in notes 3 and 4, there is an alternate analysis of pronominal reflexives with a multiattached 3 or Ben arc in which advancement precedes replacement. However, such an analysis demands the rejection of an assumption within APG, embodied in the *Coreferential Arc Law* (Johnson and Postal 1980:487): that a coreferential arc may only replace an initial arc. This, in turn, would entail that another conjunct must be added to the rule in (22) which requires that the R-predecessor of the arc which is replaced by the coreferential arc must be an initial arc.

(22) **Reflexive camouflage rule**
An arc A is replaced by a camouflage arc which supports an H arc headed by baa7 iff A is a 2 arc R-successor of a coreferential arc B which is seconded by a neighboring 1 arc.

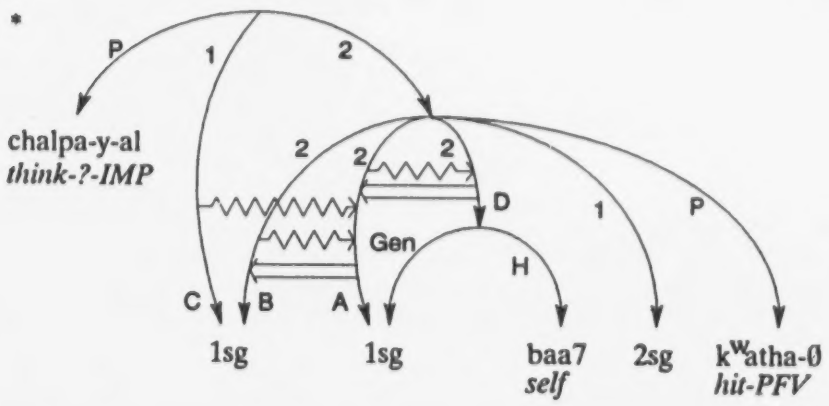
The restriction to camouflage arcs which support an H arc headed by baa7 is required to distinguish these camouflage arcs from others involved with relational nouns (see below).

The requirement that A be a 2 arc entails that the camouflage arc must be a 2 arc (since, by definition, a replacer must have the same relation as the arc that it replaces); hence, this restriction reflects the fact that the reflexive nominal is always the final 2.

The requirement that arc B be a coreferential arc restricts its cosponsors to overlapping initial arcs, reflecting, as intended, the notion of coreference. The requirement that B's seconder be a neighboring 1 arc follows from the data, and, in particular, accounts for examples like (11) above, repeated here, in which a matrix clause 1 is coreferential with a complement 2, yet the reflexive nominal may not occur:

(23) a. *U chalpa-y-al tin k^{w}atha-Ø t-u-baa7.
1s/3 think-?-IMP 2/1s hit-PFV CL-1sPOSS-self
('I think you hit me.')

b. *

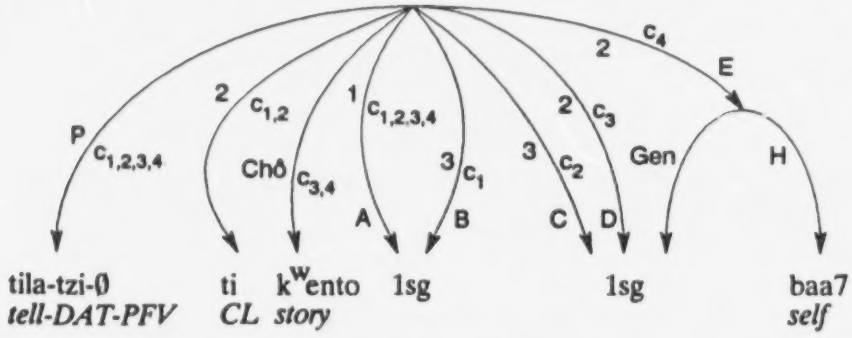


In the structure represented in (23b), arc A replaces arc B and is seconded by arc C. Since C and B overlap, A is a coreferential arc. However, the seconder, C, is not a neighbor of A; therefore, the conditions required by the rule in (22) are not satisfied and A may not be replaced by the camouflage arc, D. Thus, (22) accounts for

the fact that the antecedent of the reflexive nominal must be within the same clause.

Finally, the requirement in (22) that A be the R-successor of the coreferential arc B may best be explained by illustration: in cases which involve a multiattached initial 3 or Ben arc, such as (10) or (16), this arc is replaced by a coreferential arc, and then advancement to 2 follows. For example, consider the structure of (10), a more complete representation of which is given here:

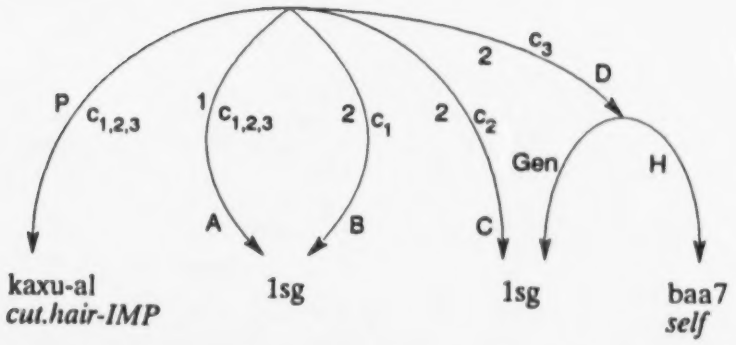
(24)



The initial 3 arc, B, is replaced by the coreferential arc, C. In turn, C has a 2 arc successor, D. Since D is the successor of C, it is also (by definition) the R-successor of C. Hence, by (22), D must be replaced by the camouflage arc E. A comparable situation applies for (16), which involves benefactive advancement. Note that it is not necessary to specify in (22) that advancement to 2 must take place: in the case of a coreferential 3 arc, an independently required rule determines that this arc must have a 2 arc successor. In the case of a coreferential Ben arc, advancement to 2 is not obligatory: thus, (15) above involves a coreferential Ben arc but not advancement to 2; its structure does not satisfy the conditions in (22), and, accordingly, it does not involve the reflexive nominal. It is exactly those cases which also involve advancement to 2 in which the reflexive nominal is required: this is captured by the rule in (22).

In contrast to examples such as (10) and (16), consider the structure in (21b), repeated here:

(25)



The initial 2 arc, B, is replaced by the coreferential arc C. Now, by definition, any arc is its own R-successor; so, C is a 2 arc R-successor of a coreferential arc (itself). Hence, in keeping with (22), C is replaced by the camouflage arc D.

There is one last detail about pronominal reflexives that remains to be accounted for: the fact that the anaphoric pronoun does not occur overtly. This appears to depend on the fact that the head noun of the reflexive nominal is **baa7**. The following examples, which have similar structures, are given for contrast. The use of a relational noun to show a locative relation is illustrated in (26). Relational nouns involve a camouflage structure nearly identical to the structure associated with reflexive nominals; the key difference in this case is that the head of the possessed noun phrase is **waal** 'face', rather than **baa7**. As well, the anaphoric pronoun need not be erased:

(26) a. (= (14))[11]

Ø buxka-n-Ø t-in waal jajaa7.
3 sit-MID-PFV CL-3POSS face 3
'He_i sat at $\text{his}_{i,j}$ side.'

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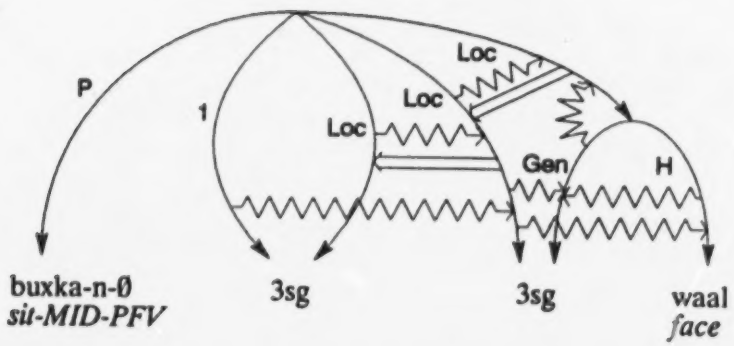
11. Aspects of structure related to the occurrence of the "middle voice" suffix, -n (glossed 'MID') are suppressed; this has no bearing, however, on the features of this example which are relevant to the point at hand.

The structure in (26b) corresponds to the coreferential reading of the clause in (26a). The non-coreferential reading would have the same structure with the exception that the initial 1 and Loc arcs would not overlap.

b.

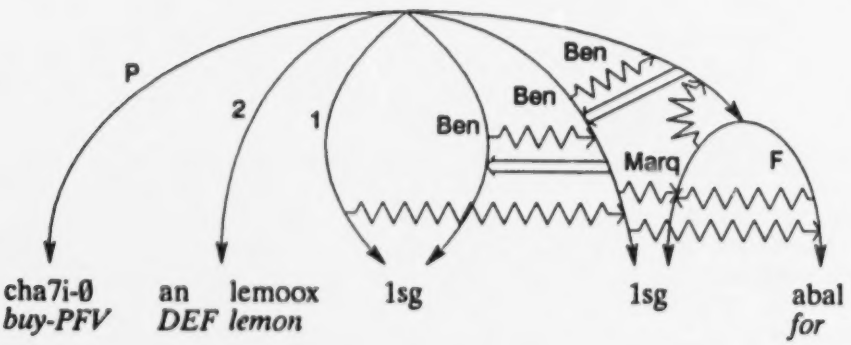


Prepositional phrases are assumed in APG to involve *closures*, a structure similar to that associated with camouflage arcs:[12] whereas the arcs supported by a camouflage arc are Gen and H arcs, a prepositional phrase involves a *closure arc* which supports a Marq (*marquee*) arc and a F (*flag*) arc. This structure is illustrated by the following example:

(27) a. (= (15))

U ch'a7i-Ø an lemoox abal nanaa7.
1s/3 buy-PFV DEF lemon for 1s
'I bought the lemon for myself.'

b.



12. For a formal definition of *closure*, see Johnson and Postal 1980:611; see also Aissen 1987:68-72. The similarity between closures and structures associated with camouflage arcs follows from the definitions since *camouflage arc* is a special case of the more general notion *closure arc*.

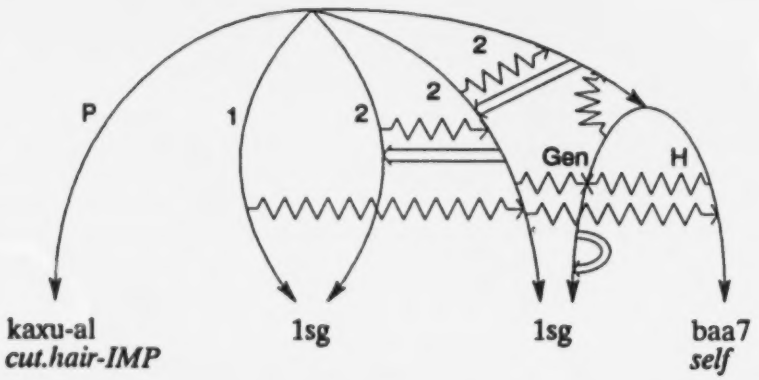
In the structure in (27b), the preposition **abal** 'for' and the pronoun **nanaa7** '1s' correspond respectively to the head noun **baa7** and the anaphoric pronoun in the reflexive camouflage structure. In this case, as in (26), the pronoun need not (in fact, may not) be erased.

Thus, some constraint is required to account for the mandatory erasure of the anaphoric pronoun in a reflexive camouflage structure; the appropriate constraint appears to be one requiring that if a Gen arc has a neighboring arc headed by **baa7**, then the Gen arc must self-erase.

(28) **Reflexive nominal erase rule**
If an arc A is headed by **baa7**, and B is a Gen arc neighbor of A, then B self-erases.

The erasure of the Gen arc accounts for the absence of the pronoun in the surface form, but does not prevent it from determining possessive agreement on the head noun. So, the more complete representation of (5) (= (21)) would be as follows:

(29)



4 CLAUSES WHICH INVOLVE REFLEXIVE VERBAL MORPHOLOGY

A second device, verbal morphology, may be used in certain clauses in Huastec that are, in some sense, reflexive. This applies to ordinary reflexives as well as other clause types: reflexive passive clauses, and reflexive unaccusative clauses; each of these will be discussed in the sections that follow.[13]

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13. There is another clause type, reflexive antipassives, which also involves this verbal morphology. These are discussed by Constable (1989).

4.1 Ordinary reflexives

Ordinary reflexive clauses in which the 1 and 2 are coreferential may involve the use of a reflexive nominal, as described above, or, in some instances, may involve only the use of the verb suffix -n, glossed 'MID' (middle) in the examples.[14] (For convenience I will refer to ordinary reflexives of the former type as *pronominal reflexives* and to those of the latter type as *morphological reflexives*.) This difference is exemplified by the following examples:

(30) a. U cha7u-Ø t-u-baa7.
1s/3 hit-PFV CL-1sPOSS-self
'I hit myself.'

b. In cha7u-n-Ø.
1s hit-MID-PFV
'I hit myself.'

Certain facts should be noted about the example in (30b): the verb is suffixed with -n, the reflexive nominal does not occur, and the clause is finally intransitive, as evidenced by the agreement proclitic. It is unclear to me at present what semantic or pragmatic distinction there is, if any, between pairs such as these. It is also unclear whether both types of reflexive clauses may be freely formed with any transitive verb root, or whether some roots are restricted to occurrence in only one type or the other.

As with pronominal reflexives, morphological reflexives involve a structure in which there is a multiattachment in the initial stratum. In this case, however, MA is resolved by *cancellation*: the initial 1 arc persists into a second stratum, but the initial 2 arc does not. Thus, the structure of (30b) is represented as follows:[15]

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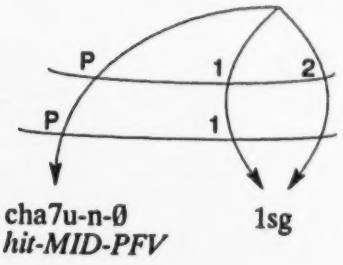
14. The term *middle* is used due to the similarity between the morphosyntax of this morpheme in Huastec and so-called *middle voice* and *medio-passives* in other languages, such as Albanian, Spanish, Welsh, Turkish, Russian, Classical Greek, Icelandic, etc.

15. Certain proposals within APG rule out cancellation as a possible means of resolving MAs. In line with this, Postal 1982 presents an analysis of comparable clauses in French in which MA is resolved by replacement. However, this alone would make these clauses finally transitive. To account for final intransitivity in the French cases, Postal's analysis also involves a demotion to 3 of the replacement 2 arc. Such a proposal, in particular, would not work in Huastec since there are no final 3s but rather 3s

(31)



This structure accounts for the reflexive meaning and the final intransitivity. Cancellation also provides an adequate condition to describe the occurrence of the suffix -n; the required rule may be stated informally as follows:

(32) **Middle voice rule**
A verb is suffixed with -n iff there is a cancellation.

As with pronominal reflexives, morphological reflexives are not limited to clauses in which the multiattached arcs are initial 1 and 2 arcs, as demonstrated by the following example which involves advancement to 2 of an initial benefactive:

(33) Wawaa7 u k'a7i-tzi-n-al abal
1p 1p carry.water-DAT-MID-IMP because

ow-ich wa7 ti-i ach'a-al an mom.
far-CMP ? CL-1p/3 feel-IMP DEF pool

'We are carrying water for ourselves because we already feel like we're a long way from the pool.'

Since the initial benefactive in (33) advances to 2, a more general condition is suggested: cancellation may be used to resolve only the multiattachment of a 2 arc and a 1 arc. This requires an additional constraint:[16]

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obligatorily advance to 2. Furthermore, Rosen 1981 considers a replacement analysis for comparable clauses in Italian and provides evidence that a cancellation analysis is comparable. Clearly, there are issues at stake here which are beyond the scope of this paper. Thus, I simply assume a cancellation analysis.

16. If these examples do involve replacement rather than cancellation (see note 14), then this rule may not be required since, under the analyses proposed in §3, only multiattached 2 arcs could be replaced.

(34) **Cancellation rule**
A cancellation may only cancel a 2 arc which is multiattached to a 1 arc.

4.2 Reflexive passives

While the middle voice suffix -n may be used in ordinary reflexive clauses, in which there is coreference and reflexive semantics involved, it may also be used in various clauses which involve neither coreference or reflexive semantics. This is the case in the following passive clauses:

(35) Ø buk'u-n-Ø in itzich an wich
3 spread-MID-PFV 3POSS seed DEF flower

k'al an ik'.
by DEF wind

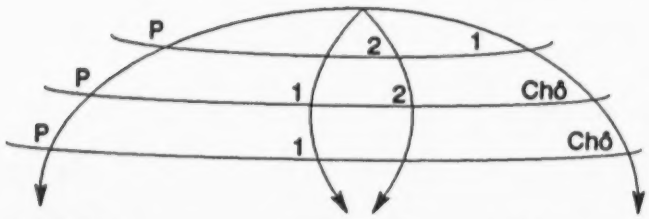
'The seeds from the flower were spread by the wind.'

(36) Ø thiipa-n-neek an te7 k'al i ch'a.
3 wind.around-MID-PRF DEF tree by INDEF vine
'The tree has been wrapped around by a vine.'

As with plain passives, clauses such as (35) and (36) are finally intransitive, the verb agrees with the patient nominal, and the agent nominal (if expressed overtly) is flagged by k'al. However, the verbs in these clauses do not have the special tense/aspect suffixes associated with plain passives; rather, the verb is suffixed by -n, and the tense/aspect suffixes are from a regular set used in other (non-passive) intransitive clauses.

The similarity that these clauses bear to plain passives is accounted for by the assumption that these clauses involve an advancement of a 2 to become the final 1, as in other passive clauses. To account for the occurrence of the suffix -n, the analysis proposed here involves a so-called *retroherent* advancement, in which an advancement occurs, but the nominal also maintains its "pre-advancement" relation; thus, the structure proposed for (36) is represented as follows:

(37)



thiipa-n-neek	an te7	k'al i ch'a
wrap.around-MID-PRF	*DEF tree*	*by INDEF vine*

This structure accounts for the final intransitivity of (36), it correctly predicts that te7 'tree' should determine final 1 agreement and that ch'a 'vine' should be flagged by k'al, as are other 1-Chômeurs, and it satisfies the condition proposed in the previous section for the occurrence of the suffix -n.

The 2 that advances to 1 in a reflexive passive need not be an *initial* 2, as indicated by the following examples:

(38) In nuju-tzi-n-Ø ti olom k'al n-a Juan.
1s sell-DAT-MID-PFV CL pig by DEF-HON John
'I was sold the pig by John.'

(39) An chakam Ø chem-tzi-n-neek
DEF child 3 die-DAT-MID-PRF

k'al in taata7-tzik.
by 3POSS parent-PL

'The child has been orphaned (*lit.* The child has been died on by his parents.)'

These examples involve an initial 3 which advances to 2, and a possessor which ascends to become a matrix clause 2.

As with other passives, the agent need not be overtly expressed, though an agent will always be understood:

(40) Chaab oox i tamub ti-u kotzi-n-al.
two three INDEF year CL-1p cut-MID-IMP
'After two or three years, they are cut off.'

(41) Ø wat'i-n-neek an pakab.
3 squeeze-MID-PRF DEF sugar.cane
'The sugar cane has been pressed.'

A complete grammar of Huastec must include lexical diacritics for each verb which indicate whether or not it may occur in plain passive clauses and in reflexive passive clauses.[17] Some verbs, such as k'apu 'eat', may occur in reflexive passives only:

(42) a. U k'apu-n-al jey an kalaam.
U1p eat-MID-IMP also DEF pumpkin
'Pumpkins are also eaten.'

b. *U k'apu-aab jey an kalaam.
U1p eat-PASS.IMP also DEF pumpkin
(same gloss)

Other verbs of this type include t'ila 'say, tell', t'aja 'do, make', ach'a 'hear', and thutza 'write'.

Some verbs, such as utzbi 'accuse', thimk'a 'bewitch', and china 'hide', may only occur in plain passives:

(43) U china-aab an olom k'al an $k^{w}e7$
U3 hide-PASS.IMP DEF pig by DEF thief

abal ne7ech ka nuju-at al bitzow.
because go K3 sell-PASS.PFV in town

'The pig is being hidden by the thief because it is going to be sold in town.'

Finally, some verbs, such as ulu 'say', and kaxu 'cut hair', may occur in either plain or reflexive passives:

(44) a. Exom ti kaxu-n-al an inik abal
be T3 cut.hair-MID-IMP DEF man because

Ø nakthaa-ich in xi7-iil.
3 long-PRF 3POSS hair-POSS

'The man is getting a haircut because his hair is long.'

---

17. The facts that follow are taken from Walker n.d.

b. Exom ti kaxu-aab an inik
be T3 cut.hair-PASS.IMP DEF man

abal Ø nakthaa-ich in xi7-iil.
because 3 long-PRF 3POSS hair-POSS

(same gloss)

It is unclear to me at present what semantic or pragmatic distinction there is, if any, between pairs such as these.

4.3 Reflexive unaccusatives

Perlmutter 1978 presents evidence that intransitive clauses in natural languages divide into two classes: those that take initial 1s, known an *unergative* predicates, and those that take initial 2s, known as *unaccusative* predicates; a stratum which contains a 1 but no 2 is known as an *unergative* stratum, and one which contains a 2 but no 1 is known as an *unaccusative* stratum[18]. In unaccusative structures, the Final 1 Law (which requires that every basic clause have a final 1) is generally satisfied by the advancement of the unaccusative 2 to 1; this type of advancement is known as *unaccusative advancement*.

In some basically intransitive clauses in Huastec, the suffix -n occurs on the verb:

(45) Exom ti paxk'u-n-al an ja7.
be T3 boil-MID-IMP DEF water
'The water is boiling.'

(46) Exom tin ooli-n-al.
be T1s go.bald-MID-IMP
'I'm going bald.'

Some of these verbs, such as ooli 'go bald', only occur in intransitive predications; other verbs of this sort include xich'a 'bleed', jilk'o 'remain', xalk'a 'appear', timk'o 'disappear' te7e 'laugh', uk'i 'cry', t'iku 'jump', and pit'k'o 'flee'.

Other verbs which are suffixed by -n in basically intransitive clauses, such as paxk'u 'boil', may occur in transitive predications; with such verbs, the single argument in the

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18. The *unaccusative hypothesis* appears to have originated with Paul Postal, though the terms *unergative* and *unaccusative* are due to Geoffrey Pullum (cf. Pullum 1988).

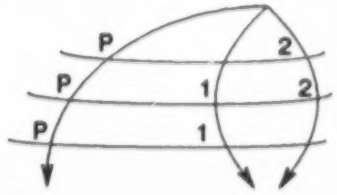
intransitive predication corresponds to the patient in the transitive predication. Thus, compare (45) with (47):

(47) In paxk'u-al an ja7.
3/3 boil-IMP DEF water
'He boils the water.'

Verbs of this type include junku 'gather', xuk'u 'mingle, mix', k'ipcho 'lose' (*intr.* 'get lost'), wilk'a 'unravel', wichi 'decorate with flowers' (*intr.* 'blossom'), buxka 'seat' (*intr.* 'sit'), k^{w}ajla 'knock over' (*intr.* 'fall'), and, undoubtedly, many others.[19]

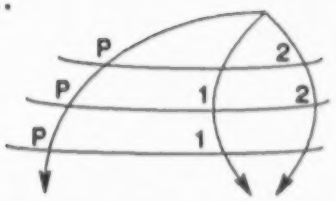
The most immediate way to account for these facts involves verb valences. Following the claims of Perlmutter 1978, I propose that all basically intransitive clauses in Huastec in which the verb is suffixed by -n have unaccusative initial strata, and that the valence of all such verbs requires that they occur in initial strata containing a 2. The difference between verbs like paxk'u 'boil' and verbs like ooli 'go bald' is also a matter of valence: verbs like paxk'u may optionally occur in initial strata which also contain a 1, but verbs like ooli must not occur in initial strata which contain a 1. Thus, paxk'u would be lexically marked as [±1, +2] (requiring an initial 2 and optionally occurring with an initial 1), and ooli would be marked lexically as [-1, +2] (requiring an initial 2 but not allowing an initial 1). Given that the clauses in question have unaccusative initial strata, the occurrence of the suffix -n may then be accounted for in precisely the same manner as was proposed for reflexive passives: a 2 advances to 1 retroherently resulting in a multiattachment which is resolved by cancellation. Thus, the structure of (46) would be represented as in (48), while the structures of (45) and (47) would be represented as in (49a) and (49b) respectively:

(48)



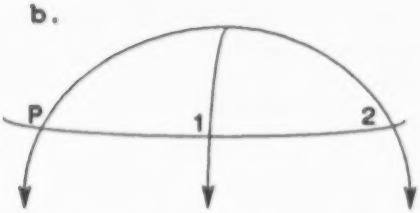
19. Dayley 1983 refers to intransitive predications of such stems as *medio-passives*. However, in terms of the definition of *passive* adopted throughout the AG literature, I claim that such clauses are not passives of any sort.

(49) a.



paxk'u-n-al an ja7
boil-MID-IMP DEF water

b.



paxk'u-al 3sg an ja7
boil-IMP DEF water

In sharp contrast to verbs like **paxk'u**, I know of no verbs in Huastec which may be suffixed by **-n** in basically intransitive clauses and which may occur in a transitive predication such that the single argument in the intransitive predication corresponds to the agent in the transitive predication, i.e. verbs with the valence marking [+1, ±2] (requiring an initial 1 and optionally allowing an initial 2). Such a verb would be exemplified by the following English examples:

(50) a. He knitted.

b. He knitted a sweater.

This absence is predicted under the proposal being presented since such verbs would occur in initially unergative strata and there would be no opportunity for unaccusative advancement.

The reflexive unaccusative analysis of clauses like (45) and (46) presented here has several points in its favour. First, it maintains a simple and general account of the occurrence of the suffix **-n**. Secondly, it allows for consistent statements of verb valence; the only obvious alternative would require that if **paxk'u** occurs in an intransitive initial stratum, then the single argument must be a 1, but that if it occurs in a transitive initial stratum, then the argument with the corresponding semantic role must be a 2.[20] Clearly, the proposal being presented permits greater generality and simplicity in the statement of verb valence. Finally, this proposal also accounts for the otherwise unexplained

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20. A biclausal analysis of transitive clauses with verbs like **paxk'u** which posits an abstract, phonologically null, causative verb as the predicate of the matrix clause would be able to maintain consistent, simple statements of verb valence. However, there is no evidence for such a predicate, nor for biclausality. Furthermore, such an analysis involves a structure that is substantially more complex. For these reasons, such an analysis is rejected.

absence in Huastec of verbs with the valence [+1, ±2] which may be suffixed by -n in basically intransitive clauses.

Not all basically intransitive clauses in Huastec involve reflexive unaccusative structures; in fact, not even all initially unaccusative clauses involve reflexive unaccusative structure. Verbs like k^{w}e7 'steal', **ubaat'** 'play', and **puna** 'ride' have a valence of [+1, ±2]:

(51) a. In puna-al an bitzim.
3/3 ride-IMP DEF horse
'He rides a horse.'

b. U puneel.
U3 ride.IMP
'He rides.'

These occur in unergative (or transitive) initial strata and therefore clearly cannot occur in reflexive unaccusative structures. Of more direct interest are verbs like **tz'utzi** 'fill', and **lo7o** 'save' (*intr.* 'survive') which have a valence of [±1, +2]:

(52) a. In lo7o-al k^{w}a7 in kithtal.
3/3 save-IMP QUOT 3POSS companion
'He was saving his companions.'

b. Tam ti ok'o-n-Ø an peejee-x-talaab
when T3 finish-MID-PFV DEF fight.RECI-AP-NOM

Ø jilk'o-n-Ø chaab oox xi Ø lo7ey.
3 remain-MID-PFV two three REL 3 save.PFV

'When the war was over, only a few remained who survived.'

The obligatory argument with these verbs is the patient. Since it is assumed that the patient is the initial 2 in both the transitive and intransitive uses, the intransitive use must involve unaccusative initial strata; yet even so, these verbs are not suffixed with -n. Huastec also has verbs, such as **bel** 'walk', **cheke** 'become tired', **pube** 'grow', **ch'aki** 'rise', **k'a7i** 'become hungry', **tuthe** 'kneel', and **waye** 'become dry', which may not occur in transitive initial strata and have valences of [+1, -2] or [-1, +2] (I presently know of no tests to determine which of these verbs are unaccusative and which are unergative), yet which never take the suffix -n.

Since some initially unaccusative structures involve retroherent unaccusative advancement while other initially unaccusative structures do not, a lexical diacritic, [±retro], is required for every verb which may occur in unaccusative initial strata which indicates whether or not the verb may occur in structures involving retroherent unaccusative advancement. It is unknown to me at present whether or not Huastec has any verbs which may occur in both reflexive unaccusative structures and plain unaccusative structures.

4.4 Reflexive antipassives

Huastec has a class of clauses which involve transitive verbs yet which are superficially intransitive; thus, compare the following pairs of examples:

(53) a. Exom u tzuku-y-al i thak xeket-laab.
be 1s/3 sew-?-IMP INDEF white garment-NPOSS
'I am sewing a white dress.'

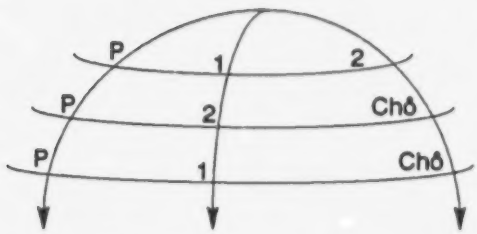
b. In tzuku-x-Ø.
U1s sew-AP-IMP
'I sew (things).'

c. In tzuku-x-Ø ti xeket-laab.
1s sew-AP-IMP CL garment-NPOSS
'I sew clothes.'

Several things are to be noted about the examples in (53). The subjects in (b) and (c) correspond to the subject in (a). Examples (b) and (c) are superficially intransitive, as evidenced by the use of intransitive agreement proclitics. The patient in the intransitive clauses may be unspecified, as in (b); when it is specified, as in (c), it is flagged by ti. The verbs in both in (b) and (c) have the suffix -x.

The analysis proposed for Huastec clauses such as those in (53b) and (c) is that they conform to the universal characterization of antipassives proposed by Postal (1977); thus, the proposed structure of (53c) is represented in (54):

(54)



tzuku-x-Ø 1sg ti xeket-laab
sew-AP-IMP *CL garment-NOM*

This analysis accounts for most of the details noted above. First, given the assumption that, generally, a verb will have a constant valence and will map semantic roles onto initial grammatical relations in a consistent manner, then the initial stratum in (54) would be the same as the initial (and final) stratum for the transitive clause in (53a). Since the initial 1 in (54) is also the final 1, this structure predicts that the final 1 in (53a) will correspond to the final 1 in (53b) and (c). Secondly, the structure in (54) is finally intransitive, predicting the use of an intransitive agreement proclitic. Finally, the patient/initial 2 is a final chômeur and thus is flagged with **ti**, like other 2-chômeurs in Huastec (for a discussion of this, see Constable 1989). Thus, we see that the only addition to the grammar that is needed to account for the clauses in (53b) and (c) is a statement describing the occurrence of the suffix **-x**.

There are certain transitive verbs in Huastec which may occur in clauses that resemble antipassive clauses such as (53b) and (c) in many ways, yet in which the verb does not have the suffix **-x** but rather has the middle voice suffix **-n**; thus, consider the following sentences, involving the transitive root **wa7u** 'fan, blow air on':

(55) Jajaa7 in wa7u-y-al an inik.
3 3/3 blow-?-IMP DEF man
'He fans the man.'

(56) In wa7u-th k'al an ik'.
1s blow-PASS.PRF by DEF wind
'I have been blown by the wind.'

(57) Ø wa7u-n-neek an ik'.
3 blow-MID-PRF DEF wind
'The wind has blown.'

(58) Tam u wa7u-n-al chapik an ik',
when U3 blow-MID-IMP hard DEF wind

u k^{w}ajla-n-al in k'^{w}e7el an te7-tzik.
U3 fall-MID-IMP 3POSS branch DEF tree-PL

'When the wind blows hard, branches fall out of the trees.'

Consider also the following examples involving the roots **thaja** 'yell', and **t'aja** 'do, make':[21]

(59) Jajaa7 Ø thaja-n-Ø.
3 3 yell-MID-PFV
'He yelled.'

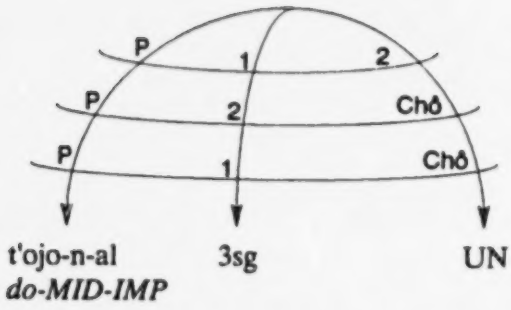
(60) Jajaa7 u t'ojo-n-al.
3 U3 do-MID-IMP
'He works.'

Three things are to be noted about the clauses in (57)-(60): the subjects correspond to the subjects that would be found in the corresponding transitive clauses; they are all finally intransitive, as indicated by the use of intransitive agreement proclitics; and the patients in each case are unspecified. These are most of the same features noted about the antipassive clauses in (53b) and (c) above; thus, it seems reasonable to expect that the clauses in (57)-(60) are structurally similar to the clauses in (53b) and (c), and to classify them together with (53b) and (c) as antipassive.

I claim that the structure of clauses such as those in (57)-(60) includes the basic structure proposed for plain antipassives; thus, the structure proposed for the clause in (60) includes the following sub-structure:

21. There is some rule in the grammar that applies to the root **t'aja** in certain circumstances causing the /a/ in both syllables to change to [o]; thus, the following forms are attested: **t'ojo-n** 'do-MID', and **t'ojo-m** 'do-AP'.

(61)

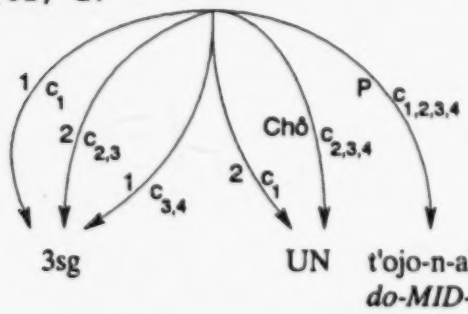


Just as the structure in (54) accounts for the facts noted about the antipassive clauses (53b) and (c), so also the structure in (61) accounts for the facts noted about (57)-(60).

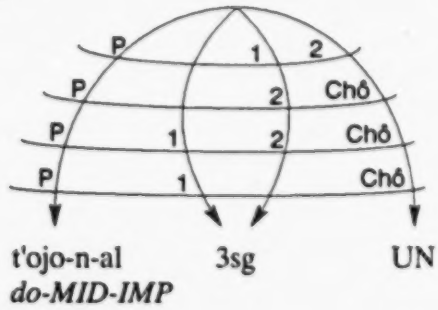
The key issue with clauses such as (60) is to provide some account for the occurrence of the middle voice suffix -n. We have seen previously that the occurrence of -n is directly linked to the multiattachment of a 1 arc and a 2 arc. This multiattachment can arise in two ways: the structure may have multiattached arcs in the initial stratum, indicating coreference, or the multiattachment may arise due to a retroherent 2 to 1 advancement. The latter structure was posited for reflexive passives and reflexive unaccusatives.

Clearly, none of the clauses in (57)-(60) involve coreference; therefore, the occurrence of the suffix -n must be due to the multiattachment of a 1 arc and a 2 arc which arises from a retroherent 2 to 1 advancement. This condition can be readily incorporated into the analysis in (61); thus, the more complete structure of (60) is as represented in the following diagram:

(62) a.



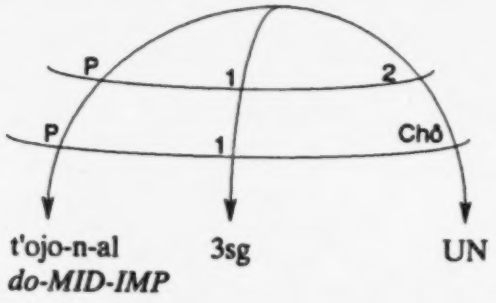
b.



This analysis permits an account of clauses in Huastec like (60) based solely upon independently established rules in the grammar without the need for any additional constraints.

Davies 1984 presents data from Choctaw which provides evidence for the "middle" stratum in antipassive clauses in that language; this in turn provides some evidence in favour of the proposed universal characterization of antipassives. Yet, there has been little evidence from other languages for the "middle" stratum in antipassive clauses. Huastec, however, provides novel evidence for this stratum, based upon the clauses under consideration. The account given for the occurrence of -n in clauses like that in (60) critically depends on the assumption that these clauses involve a 2 to 1 advancement and, therefore, that the middle stratum posited for antipassives, in which the initial/final 1 is a 2, is indeed a part of their structure. The only clear alternative analysis for (60) is a structure which involves spontaneous demotion of the initial 2:

(63)



Yet the analysis in (63) fails to account for the occurrence of -n, and the only apparent way of accomplishing this is by some ad hoc rule. Hence, this analysis is in sharp contrast to that in (62) which requires no new rules but accounts for the occurrence of -n based upon the independently motivated middle voice and cancellation rules. Thus, I conclude that (62) is a valid representation of the structure of the clause in (60).

We have seen evidence for the "middle strata" in clauses, such as (57)-(60). Yet these clauses appear to represent a special case of the general notion of antipassive. Therefore, I conclude that the clauses in (53b) and (c) have the structure represented in (54), and, more generally, that antipassive clauses in Huastec have a structure that includes a "middle" stratum (strata) in which the initial/final 1 is a 2. This, in turn, provides support for the universal characterization of antipassive proposed by Postal (1977).

If the proposed universal characterization of antipassive is correct, then these too involve a 2 to 1 advancement. Thus, it would be expected that some language should allow antipassive structures in which the 2 to 1 advancement is retroherent; this appears to be the case in Huastec.

4.5 Conditions on the occurrence of -n

Assuming the validity of the unaccusative hypothesis of Perlmutter 1978 and of the proposed valences of verbs considered in the previous sections, then clauses in which the verb is suffixed by -n either (i) have structures which involve the advancement of a 2 to 1, or (ii) are reflexive clauses involving coreference, which, in terms of the theoretical framework assumed here, is represented by multiattached 1 and 2 arcs in the initial stratum.

Two obvious questions are raised by the facts presented here: What feature(s), if any, do *all* of these clauses share in common which may provide a sufficient (and, perhaps, necessary) condition for the occurrence of -n? Why is it specifically *these* types of clauses which share this morphosyntactic feature?

Interestingly, these very questions arise, with variation in language-specific details only, in numerous languages, such as Italian, Albanian, Russian, and others. Two proposals arising from research in AG, the multiattachment hypothesis and the unaccusative hypothesis, have played a significant role in providing answers to these questions which offer simple and general accounts of the data in question, in some cases capturing generalizations that had previously gone unnoticed, and which reveal significant cross-linguistic similarity. This similarity arises since, interestingly, the answer to the questions is consistent in all of these languages: all of the structures which share a particular (language-specific) morphosyntactic feature have some nominal which heads both a 1 arc and a 2 arc. This answer is embodied in the two rules of Huastec grammar proposed earlier:

(64) **Middle voice rule**
A verb is suffixed with -n iff there is a cancellation.

(65) **Cancellation rule**
A cancellation may only cancel a 2 arc which is multiattached to a 1 arc.

The condition that some nominal head both a 1 arc and a 2 arc may be satisfied in a general way by any nominal which heads a 1 arc and a 2 arc, without regard to syntactic levels, or in a more restricted way in which it is required, in addition, that the 1 arc and 2 arc both be in some stratum, i.e. that they are multiattached. It is clear that the more general condition is not sufficient for determining the occurrence of -n in Huastec since plain passives have a nominal which heads both a 1 arc and a 2 arc (the initial 2/final 1), yet the verb in such clauses in not suffixed by -n. Thus, multiattachment of a 1 arc and a 2 arc appears to be a necessary condition for the occurrence of -n. It alone is not a sufficient condition, however, since pronominal reflexives, as

analyzed in §3, may have multiattached 1 arcs and 2 arcs, yet the verb in these clauses in never suffixed by -n. Thus, cancellation is a further necessary condition for the occurrence of -n. By limiting cancellation to multiattachments of 1 arcs and 2 arcs only, it becomes both a necessary and sufficient condition.

Aside from the features assumed by the rules in (64) and (65), (ordinary) reflexives, reflexive passives, reflexive unaccusatives and reflexive antipassives share little in common: reflexive passives, unaccusatives and antipassives involve a revaluation while reflexives do not; reflexives, reflexive passives and reflexive antipassives have transitive initial strata while reflexive unaccusatives have intransitive initial strata; in reflexives and reflexive antipassives the initial 1 is also the final 1 while in reflexive passives and reflexive unaccusatives the initial 1 is not the final 1.

The occurrence of -n cannot be attributed to semantics: this is ruled out at the lexical level since individual verbs may occur in both plain and reflexive passives or in both morphological and pronominal reflexive clauses; this is ruled out at predication or discourse levels since many verbs have lexical diacritics indicating that they must or must not occur in reflexive unaccusative structures, or that passive structures in which they occur must or must not be reflexive passives. Factors such as agentivity or control do not help: the arguments of reflexive unaccusative verbs like xich'a 'bleed' and ooli 'go bald' do not differ in agentivity or control from those of intransitive verbs like pube 'grow', thot'e 'evaporate', waye 'become dry' which are not suffixed by -n. On the other hand, xich'a and ooli do differ in agentivity and control from verbs such as jilk'o 'remain' and t'iko 'jump', yet all occur in reflexive unaccusative structures.

These facts provide strong evidence in favour of the rules in (64) and (65) and the structures proposed here; there appears to be no other potential account of the occurrence of -n which has the same simplicity and generality. Furthermore, the similarity between this account and accounts of comparable data which recur with significant regularity cross-linguistically adds additional support to this analysis.

ABBREVIATIONS

1sPOSS, etc.	person and number agreement for the possessor in possessed noun phrases
1s/3, 2/1s, etc.	person and number agreement for subject and direct object in transitive clauses; for a gloss of the form *a/b*, *a* cross-references the subject and *b* cross-references the direct object
AG	arc grammar (refers to arc pair grammar and relational grammar collectively)
APG	arc pair grammar
AP	antipassive
CAUS	causative
CL	clitic
CMP	completive
DAT	dative
DEF	definite
HON	honorific
iff	if and only if
IMP	imperfective
INDEF	indefinite
K1s, etc.	agreement clitic from the (transitive or intransitive) K-set (choice of clitic set used is determined by various factors including tense, aspect and mood)
MID	middle
NOM	nominalizer
NPOSS	non-possessed
PASS	passive
PFV	perfective
PL	plural
POSS	possessed
PRF	perfect
QUOT	quotative (evidential)
RECI	reciprocal
REL	relativizer
RG	relational grammar
T1s, etc.	agreement clitic from the intransitive T-set (choice of clitic set used is determined by various factors including tense, aspect and mood)
U1s, etc.	agreement clitic from the intransitive U-set (choice of clitic set used is determined by various factors including tense, aspect and mood)
UN	unspecified

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